

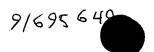


Hide Items Restore Clear Cancel

DATE: Saturday, January 10, 2004

Hide?	<u>Set</u> Name	Query	<u>Hit</u> Count
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	L20	L19	0
	DB=U	SPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=OR	
$\Box$	L19	((sen\$ or recommend\$) same (proximity with (product or item)))and wire\$	16
	DB=EB	PAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=OR	
	L18	((sen\$ or recommend\$) same (proximity with (product or item)))and database and wire\$	0
	DB=U	SPT; THES=ASSIGNEE; PLUR=YES; OP=OR	
	L17	115 not L16	3
	L16	L15 and profile	2
	L15	L14 and wire\$	5
	L14	L3 and (select\$ with categor\$ with (supplier or vendor or seller))	11
	L13	L3 and (select\$ with (categor\$ or servic\$) with (supplier or vendor or seller))	49
	L12	L3 and ((select\$ or pick\$ or choos\$) with (categor\$ or servic\$) with (supplier or vendor or seller))	54
	L11	L3 and ((select\$ or pick\$ or choos\$) with (categor\$ or kind\$ or type or servic\$) with (suppl\$ or vendor or seller))	97
	L10	L9 and database and wire\$	4
	L9	L8 and ((shop\$ or purchas\$ or buy\$) with profil\$)	7
	L8	L3 and (recommend\$ with (product or item) with profil\$)	13
	L7	L6 and (radio with frequenc\$)	1
$\Box$	L6	4789983.pn.	1
	L5	L3 and (sens\$ with proximity with (product or item))	1
	L4	L3 and (recommend\$ same (proximity with (product or item)))	0
	L3	=20001024	1025
	L2	L1 and wire\$ and profil\$	1
	L1	=20001024	7

END OF SEARCH HISTORY



# Refine Search

# Search Results -

Terms	Documents
(("wire-less" or (wire adj less) or wireless) adj communicat\$) and (access\$ same node) and @pd<=19871228	0

Database: US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins  L6	······································	Search History	 
Database: US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins  L6		Recall Text Clear	Interrupt
Database: US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index	Search:	L6	Refine Search
US Pre-Grant Publication Full-Text Database US Patents Full-Text Database	Database:	US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index	

# DATE: Wednesday, January 07, 2004 Printable Copy Create Case

Set Name side by side	Query	<u>Hit</u> Count	Set Name result set
DB=I	PGPB, USOC, EPAB, JPAB, DWPI, TDBD; THES=ASSIGNEE; PLUR=YES; OP	=OR	
<u>L6</u>	(("wire-less" or (wire adj less) or wireless) adj communicat\$) and (access\$ same node) and @pd<=19871228	0	<u>L6</u>
<u>L5</u>	(("wire-less" or (wire adj less) or wireless) adj communicat\$) and (access\$ with node) and @pd<=19871228	0	<u>L5</u>
DB = 0	USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
<u>L4</u>	L3 and (venue or public\$ or mall or shop\$)	0	<u>L4</u>
<u>L3</u>	L2 and radio	1	<u>L3</u>
<u>L2</u>	(("wire-less" or (wire adj less) or wireless) adj communicat\$) and (access\$ with node) and @ad<=19871228	1	<u>L2</u>
<u>L1</u>	(("wire-less" or (wire adj less) or wireless) adj communicat\$) and (lan or (local adj area adj network\$)) and (access\$ same node) and @ad<=19871228	1	<u>L1</u>

# **END OF SEARCH HISTORY**

h eb b cg b e e ch



# First Hit Fwd Refs End of Result Set

# Generate Collection Print

L1: Entry 1 of 1 File: USPT Dec 6, 1988

US-PAT-NO: 4789983

DOCUMENT-IDENTIFIER: US 4789983 A

TITLE: Wireless network for wideband indoor communications

DATE-ISSUED: December 6, 1988

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Acampora; Anthony Freehold NJ Winters; Jack H. Middletown NJ

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

American Telephone and Telegraph Murray
Company, AT&T Bell Laboratories Hill

Search Selected

APPL-NO: 07/ 022255 [PALM]
DATE FILED: March 5, 1987

INT-CL: [04] H04J 3/14

US-CL-ISSUED: 370/96; 370/84

US-CL-CURRENT: <u>370/349</u>; <u>370/333</u>, <u>370/346</u>

FIELD-OF-SEARCH: 370/94, 370/95, 370/96, 370/109, 370/29, 370/13.1, 370/17, 370/97,

370/84, 379/58, 379/61, 379/63, 371/5

PRIOR-ART-DISCLOSED:

# U.S. PATENT DOCUMENTS

Search ALL

Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4251865	February 1981	Moore et al.	370/96
4301533	November 1981	Acampora et al.	370/104
4309764	January 1982	Acampora	370/83
4398289	August 1983	Schoute	370/94
4606044	August 1986	Kudo	370/84
4692919	September 1987	West, Jr.	370/96

<u>4742514</u> May 1988

Goode et al.

370/97

#### OTHER PUBLICATIONS

Komura et al., Japan Telecomm. Rev., Quarterly, vol. 15, No. 4, 1973, pp. 257-261. Acampora, BSTJ, vol. 58, No. 9, Nov. 1979, pp. 2097-2111. Gfeller, IBM Discl. Bul, vol. 24, No. 8, Jan. 1982, pp. 4043-4046. Acampora, IEEE Jrnl on SAC, vol. SAC-1, Jan. 1983, pp. 133-142. Acampora et al., IEEE Communications Magazine, vol. 22, No. 8, Aug. 1984, pp. 12-21. Mednick, Globecom '85, New Orleans, La., vol. 1, pp. 15.2.1 to 15.2.6. Yen et al., Globecom '85, New Orleans, La., vol. 3, pp. 39.1.1 to 39.1.4.

ART-UNIT: 263

PRIMARY-EXAMINER: Olms; Douglas W.

ASSISTANT-EXAMINER: Marcelo; Melvin

ATTY-AGENT-FIRM: Pfeifle; Erwin W.

#### ABSTRACT:

The present invention relates to a wideband communication network using wireless radio transmissions either on a stand-alone basis or to supplement a hard-wired network. The exemplary network comprises (a) a plurality of transceivers associated with separate users of the network; (b) optionally at least one concentrator associated with certain separate subgroups of wireless and possibly hard-wired transceivers for providing duplex operation; and (c) a central node (i) capable of providing both duplex communications directly via a radio channel using radio links with certain subgroups of the transceivers and via a hard-wired connection with each optional concentrator, and (ii) for polling the needs of all transceivers and directing all packets of information from active transceivers through the central node and to the destined transceivers during each frame period. The network also preferably includes diversity and resource sharing techniques to provide added protection against channel impairments on an as-needed basis.

10 Claims, 2 Drawing figures

# First Hit Fwd Refs End of Result Set

Generate Collection Print

L1: Entry 1 of 1 File: USPT Dec 6, 1988

DOCUMENT-IDENTIFIER: US 4789983 A

TITLE: Wireless network for wideband indoor communications

# <u>Application Filing Date</u> (1): 19870305

### Brief Summary Text (4):

<u>Local Area Networks (LANs)</u> have included many different architectures such as the bus, loop, ring, star, tree, etc. One such <u>LAN</u> is disclosed in the article "A New <u>Local Area Network</u> Architecture Using A Centralized Bus" by A. Acampora et al. in IEEE Communications Magazine, Vol. 22, No. 8, August 1984, at pages 12-21. There, a centralized bus is used with all user devices being hard-wired to a central node as shown in FIGS. 1-3 of the article.

#### Brief Summary Text (5):

Indoor <u>wireless communications</u> networks have also been developed over the years. In the article "Cordless Telephone System" by M. Komura et al., published in the Japanese Telecommunications Review, Vol. 15, No. 4, 1973, at pages 257-261, a cordless radio telephone system is disclosed which permits telephones to communicate via radio to a localized antenna which is directly connected to a base station. Another technique for wireless indoor communication is disclosed by F. Gfeller in the IBM Technical Disclosure Bulletin, Vol. 24, No. 8, January 1982, at pages 4043-4046 wherein an infrared microbroadcasting network for in-house data communication is disclosed. There, a host controller is directly connected to a plurality of spaced-apart transponders for transmitting 2-way communications via infrared signals with the various stations forming the in-house system.

#### Brief Summary Text (6):

More recently, an office information network was disclosed in Globecom '85, Vol. 1, Dec. 2-5, 1985, New Orleans, La. at pages 15.2.1-15.2.6 wherein a slotted-ring access protocol and a dynamic bandwidth allocation scheme offering preferential service to high-priority traffic is provided. There, a dual optical fiber ring, transmitting in opposite directions, propagates the communication signals to various nodes along the fibers. Connections between the network nodes and local facilities or servers are copper pairs or, where appropriate, wireless drops.

## Brief Summary Text (11):

It is also an aspect of the present invention to provide a wideband indoor communications network as described above where (1) diverstiy antennas can be used at the concentrators and central node, and one or more antennas can be used at each transceiver, and (2) access to the radio channel used by all wireless transceivers is performed by a modified polling scheme which permits resource sharing to provide added protection against channel impairments on an asneeded basis.

## Detailed Description Text (2):

FIG. 1 illustrates an exemplary system topology which is functionally that of a star <u>Local Area Network (LAN)</u> comprising a central node 30, remote concentrators 20 and 21, and a plurality of user devices 10-19. Each user device 10-19 is associated

with a separate user of the network and can communicate with central node 30 (1) via a hard-wired connection 26, as shown for the indirect connections between user devices 10-13 and concentrators 20 and 21; or (2) via a wireless link as shown for (a) the channel comprising links 27 between a subgroup of user devices 18-19 and central node 30, or (b) the indirect channel comprising links 28 between a subgroup of users 14-15 and a subgroup of users 16-17 and concentrators 20 and 21, respectively. It is to be understood that user devices 10-19 can each be coupled to a separate user terminal (not shown) such as, for example, a data device, printer, personal computer, host computer, telephone, etc.

#### Detailed Description Text (6):

The receiving concentrator demultiplexes all arriving packets from central node 30 for distribution via bus 29.sub.b to the appropriate UIM and transmission to the destined user device. Logical channel numbers are preferably assigned for the entire network at the beginning of a predetermined time period of communications by call processor 35 in central node 30. Additional device configurations and operational details are described in the article "A New Local Area Network Architecture Using A Centralized Bus" by Acampora et al. in IEEE Communications Magazine, Vol. 22, No. 8, August 1984, at pages 12-21.

## Detailed Description Text (7):

Radio links may be introduced, as shown in FIG. 1, via either a wireless link between a UIM 23 in either one of concentrators 20 or 21 as shown for link 28, or a wireless link directly to a NIU 33 in central node 30 as shown for link 27. For link 27, the high-speed links from trunk modules 25 in concentrators 20 and 21 to central node 30 have been augmented by the inclusion of an NIU 33 in central node 30 which becomes a radio base station providing a high-speed channel to collect traffic from a subgroup of radio user devices 18-19 located throughout the building. It is to be understood that the term channel hereinafter implies full duplex operation, with separate bands used to transmit to and receive from NIU 33. This radio channel operates at a rate less than or equal to that of the central node's contention buses 36 and 37 and each of the high-speed links between trunk modules 25 and NIU's 32 and 34. With an appropriate access protocol, the radio channel may be shared among all radio users 18-19 and appear, to central node 30, as a virtual concentrator. Fixed length packets arriving over links 27 contend for the nodal bus 36 along with packets arriving via high-speed buses at NIUs 32 and 34 from trunk modules 25. The packets arriving from the wired links 26 may be rerouted by central node 30 to a radio link 27, and vice-versa, according to a destination address included in each packet.

#### Detailed Description Text (8):

A wireless link 28 establishes a communication path from each user of a subgroup of users, 14-15 or 16-17, to an associated UIM 23 in one of remote concentrators 20 or 21. Although multiple paths are established within a subgroup of users associated with a UIM 23 or NIU 33, these links time-share a single radio channel. More particularly, at any moment, only one radio user of a subgroup of users may access the radio channel. It should be noted that there is no need to provide an aggregate data rate over all radio links 27 or 28 in excess of the transmission speed of central node 30 since all packets must be routed through central node 30. Therefore, it is pointless to reuse the radio channel among user subgroups, as this increased capacity could not be used. Thus, by sharing a single channel, operating at the speed of central <u>node</u> 30, among all radio users, each user can potentially access the full system bandwidth, and interference among clusters caused by simultaneous use of the channel by users in different clusters is avoided. From the perspective of central node 30, a radio link 28 established from each concentrator 20 or 21 to each of its subgroups of radio users appears as another wired port (UIM 22) on the concentrator.

#### Detailed Description Text (9):

Regarding the radio or wireless links only, each of the UIMs 23 or NIU 33 are

preferably equipped with multiple antennas for diversity to protect against multipath fading, and each user device 14-19 is preferably equipped with only a single antenna, although multiple antennas could be used. The combination of limited diversity at the concentrators 20 and 21, and central node 30, along with resource sharing can be used to provide arbitrarily high availability. No direct communication is permitted among users, since all users may communicate only with concentrators 20 or 21 or central node 30. It should be understood that common media access techniques, such as Carrier Sense Multiple Access (CSMA), are inappropriate in the radio environment because free space path loss and multipath fading result in too large a variation of signal strength to insure that all channel usage can be detected. To keep the wireless user devices 14-19 inexperience, sophisticated timing requirements should be avoided. Finally, because of problems with delay spread, it is desired that the throughput of the system not be significantly reduced by a media access technique, and separate receive and transmit channels must be provided to allow full duplex operation.

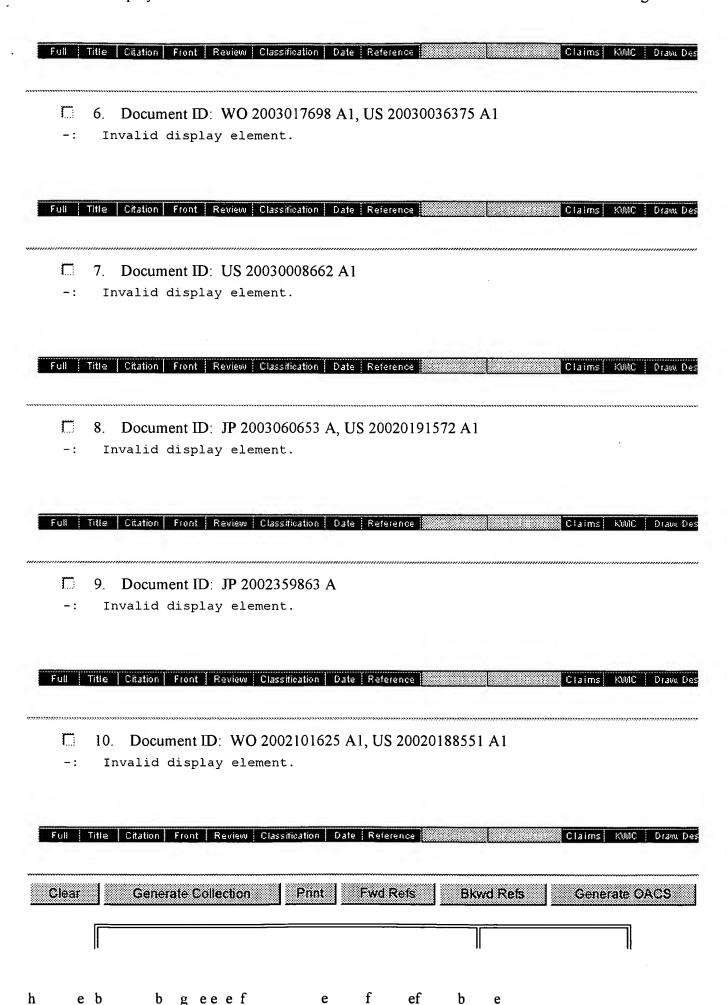
# Detailed Description Text (11):

The present exemplary polling technique for use with the radio channel associated with the wireless UDs 14-19 is shown in FIG. 2. There, time is divided into a sequence of fixed length intervals called frames, as shown at the top of FIG. 2. At the start of each frame a polling interval 40 appears, followed by multiple intervals for transmission of continuous (voice) traffic packets 41, and bursty (data) traffic packets 42. The length of the continuous traffic intervals 41 depends on the amount of continuous traffic. This continuous traffic is transmitted periodically, at least once per frame period, with the time interval between continuous traffic intervals used for bursty traffic. Transmission of one fixed length packet per continuous traffic interval constitutes some standard grade service, e.g., 64 kbps. Continuous traffic UDs may request multiples of this basic rate by accessing multiple time slots per continuous traffic interval. The polling sequence is shown at the bottom two lines of FIG. 2 for transmissions from and to central node 30.

# CLAIMS:

- 2. A wideband packet communication network according to claim 1 wherein the receiving and retransmitting means comprises:
- a high-speed bus for propagating packets of information from the plurality of transmitters on a time division multiplexed basis; and
- a plurality of network interface units (NIUs), each NIU being associated with a separate subgroup of one or more of the plurality of transmitters, and connected to the tramsitters of the separate subgroup via a <u>wireless communication</u> link or separate hard-wired connections for receiving the packets of information from the associated subgroup of transmitters and transmitting each packet over the high-speed bus during a free time slot period to the NIU associated with a user destined to receive the packet of information.

# SEARCH



Dec 6, 2002

# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 11 through 20 of 22 returned.

11. Document ID: CA 2388966 A1, US 20020188464 A1

L2: Entry 11 of 22 File: DWPI

DERWENT-ACC-NO: 2003-266692

DERWENT-WEEK: 200326

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Network based survey conduction and marketing method involves offering incentives to encourage individuals for accessing web sites after distributing card including contact information and associated unique event ID

Full Title Citation Front Review Classification Date Reference Claims KWIC Draw De

12. Document ID: US 20020167916 A1

L2: Entry 12 of 22 File: DWPI Nov 14, 2002

DERWENT-ACC-NO: 2003-199249

DERWENT-WEEK: 200319

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: <u>Wireless</u> retail customer intranet provision method for retail facility, involves allowing PDA mounted on <u>shopping</u> carts to communicate mutually and to wirelessly exchange information with server through  $\underline{LAN}$ 

Full Title Citation Front Review Classification Date Reference Claims KMC Draw De Claims III. Document ID: US 20020161658 A1
L2: Entry 13 of 22 File: DWPI Oct 31, 2002

DERWENT-ACC-NO: 2003-156347

DERWENT-WEEK: 200315

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Shopping list creating method for online, retail store shopping, involves receiving product ID data such as UPC from merchants computer system memory through wireless barcode scanner

14. Document ID: US 20020127969 A1

L2: Entry 14 of 22

File: DWPI

Sep 12, 2002

Mar 21, 2002

DERWENT-ACC-NO: 2003-090365

DERWENT-WEEK: 200308

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: <u>Wireless</u> communication system has storage device to store content received from service provider and transmitter to transmit stored content to portable

communication devices within respective transmission range

Full Title Citation Front Review Classification Date Reference Claims KWC Draw De Claims KWC De Claims KWC De Claims KWC Draw De Claims KWC De

DERWENT-ACC-NO: 2002-739843

DERWENT-WEEK: 200282

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Location identification information provision method for mobile asset involves detecting presence of radio frequency energy less than predetermined

threshold on specific channel

Full Title Citation Front Review Classification Date Reference

Claims KWC Draw De Claims Long Draw De Claims KWC Draw De Claims Long Draw De Clai

DERWENT-ACC-NO: 2002-631278

DERWENT-WEEK: 200268

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TITLE: Wireless LAN system used in office, includes antenna having directivity,

along specific zone connected to branch circuit of waveguide

Full Title Citation Front Review Classification Date Reference Claims KWC Draw De 17. Document ID: KR 2002021565 A

File: DWPI

DERWENT-ACC-NO: 2002-605800

L2: Entry 17 of 22

DERWENT-WEEK: 200265

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Electronic commerce method and system using communication networks

18. Document ID: US 20020016716 A1, KR 2001103865 A, CN 1323010 A, JP

2002007753 A

L2: Entry 18 of 22

File: DWPI

Feb 7, 2002

DERWENT-ACC-NO: 2002-215996

DERWENT-WEEK: 200231

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Product information providing method for Internet <u>shopping</u> mall server, involves transmitting multimedia document to simulate customer selected product operating principle, to customer

Full Title Citation Front Review Classification Date Reference Claims KMC Draw. De 19. Document ID: KR 2002003716 A

L2: Entry 19 of 22 File: DWPI Jan 15, 2002

DERWENT-ACC-NO: 2002-452649

DERWENT-WEEK: 200248

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Method for supplying post payment electronic commercial transaction using

wireless terminal

Full Title Citation Front Review Classification Date Reference Claims NMC Draw De Claims Document ID: US 20010054012 A1, AU 200168374 A, WO 200197087 A1

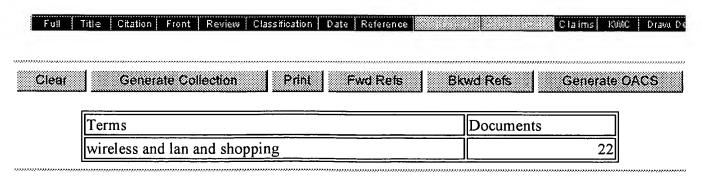
L2: Entry 20 of 22 File: DWPI Dec 20, 2001

DERWENT-ACC-NO: 2002-121446

DERWENT-WEEK: 200227

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Electronic transaction method in Internet, involves collecting, maintaining and processing all transaction information at client system



Nov 8, 2001

# Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

# Search Results - Record(s) 21 through 22 of 22 returned.

21. Document ID: US 20010039180 A1

L2: Entry 21 of 22 File: DWPI

DERWENT-ACC-NO: 2002-266845

DERWENT-WEEK: 200266

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Electronic information distribution system for residence, public buildings, rebroadcasts portion of broadcast signal received in base station using local area

network, to television



22. Document ID: WO 200169803 A1, AU 200034641 A

L2: Entry 22 of 22 File: DWPI Sep 20, 2001

DERWENT-ACC-NO: 2002-291635

DERWENT-WEEK: 200233

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Spread spectrum receiver module for wireless door opening system, has

automatic gain control which filters spread spectrum signal

Full	Title   Citation	Front	Review	Classification					Claims	KWAC	Draws D
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Display Format: TI Change Format

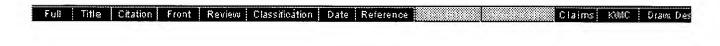
Previous Page Next Page Go to Doc#

# **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

**Search Results -** Record(s) 1 through 10 of 22 returned.

- 1. Document ID: US 20030200152 A1
- -: Invalid display element.



- 2. Document ID: JP 2003174457 A
- -: Invalid display element.



- 3. Document ID: GB 2384719 A
- -: Invalid display element.



- 4. Document ID: JP 2003150812 A, US 20030093369 A1
- -: Invalid display element.



- 5. Document ID: US 20030065805 A1
- -: Invalid display element.

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Terms	Documents
wireless and lan and shopping	22

Display Format: TI Change Format

Previous Page Next Page Go to Doc#

# Refine Search

# Search Results -

Terms	Documents
wireless and lan and shopping	22

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database

EPO Abstracts Database

JPO Abstracts Database Derwent World Patents Index

IBM Technical Disclosure Bulletins

Search:

	4
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Refine Search

Recall Text 🗢

Interrupt

# Search History

Clear

DATE: Sunday, January 11, 2004 Printable Copy Create Case

# Set Name Query side by side

Hit Count Set Name

result set

DB=EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=OR

L2 wireless and lan and shopping

2 <u>L2</u>

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

<u>L1</u> 6314406.pn. or 6513015.pn. or 6324522.pn.

3 <u>L1</u>

**END OF SEARCH HISTORY** 

# First Hit Fwd Refs End of Result Set

# ☐ Generate Collection Print

L5: Entry 1 of 1

File: USPT

Nov 6, 2001

US-PAT-NO: 6314406

DOCUMENT-IDENTIFIER: US 6314406 B1

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Customer information network

DATE-ISSUED: November 6, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

O'Hagan; Timothy P. Akron OH
Canda; Gregory Tallmadge OH
Traxler; James E. Bay Village OH

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Telxon Corporation Holtsville NY 02

APPL-NO: 08/ 921235 [PALM]
DATE FILED: August 29, 1997

## PARENT-CASE:

CROSS REFERENCE TO RELATED APPLICATIONS This application is a continuation-in-part of copending U.S. patent application Ser. No. 08/668,343 filed Jun. 26, 1996; U.S. patent, application Ser. No. 08/744,109 filed Nov. 5, 1996; U.S. patent application Ser. No. 08/752,301 filed Nov. 19, 1996; and U.S. patent application Ser. No. 08/770,690 filed Dec. 19, 1996.

INT-CL: [07] G60 F 17/60

US-CL-ISSUED: 705/14; 705/26, 705/27, 345/189

US-CL-CURRENT: <u>705/14</u>; <u>705/26</u>, <u>705/27</u>

FIELD-OF-SEARCH: 705/1, 705/14, 705/26, 235/383, 235/385, 235/375, 235/462, 340/825

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO ISSUE-DATE PATENTEE-NAME US-CL

☐ 3959624 May 1976 Kaslow

4323773	April 1902	Carpenter	
4345315	August 1982	Cadotte et al.	
4415065	November 1983	Sandstedt	
<u>4703423</u>	October 1987	Bado et al.	
4727245	February 1988	Dobbins et al.	
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4882724	November 1989	Vela et al.	705/14
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5012349	April 1991	de Fay	
<u>5013387</u>	May 1991	Goodwin et al.	
5047614	September 1991	Bianco	
<u>5185695</u>	February 1993	Pruchnicki	
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5250789	October 1993	Johnsen	705/14
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5319181	June 1994	Shellhammer et al.	
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5340971	August 1994	Rockstein et al.	
<u>5361871</u>	November 1994	Gopta et al.	
5382779	January 1995	Gopta et al.	
5414250	May 1995	Swartz et al.	
<u>5418354</u>	May 1995	Halling et al.	235/383
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5448046	September 1995	Swartz	
<u>5481103</u>	January 1996	Wang	
<u>5484991</u>	January 1996	Shernan et al.	
<u>5493107</u>	February 1996	Gopta et al.	
<u>5505494</u>	April 1996	Belluci et al.	
<u>5515081</u>	May 1996	Vasilik	345/189
<u>5534684</u>	July 1996	Danielson	
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<u>5586237</u>	December 1996	Baecker et al.	
5602377	February 1997	Beller et al.	
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<u>5637851</u>	June 1997	Swartz et al.	
5640002	June 1997	Rupper et al.	235/462.46

5640193	June 1997	Wellner	348/7
<u>5650800</u>	July 1997	Benson	345/173
5689101	November 1997	Kikuchi et al.	235/383
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#### FOREIGN PATENT DOCUMENTS

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SSDS INTER ACT SYSTEMS: SSDS Inc., and Inter-Act Systems implement new "clipless" coupon program in major grocery stores in the Northeast; Business Editors, Sep. 1996.

ART-UNIT: 212

PRIMARY-EXAMINER: Trammell; James P.

ASSISTANT-EXAMINER: Retta; Yehdega

ATTY-AGENT-FIRM: Amin & Turocy, LLP

#### ABSTRACT:

A retail customer information system which includes: at least one data processing device including a data storage adapted for selectively storing marketing data in a plurality of data fields. The customer information system also includes a portable transaction computer having a graphical user interface adapted to selectively display icon data representing data stored in the data storage. The portable

transaction compute further including a random ac memory; and a processor adapted to process instructions disposed in the random access memory. The retail customer information system further including a first data channel adapted for selectively communicating marketing data between the portable transaction computer and the data processing device.

30 Claims, 42 Drawing figures

# First Hit Fwd Refs End of Result Set

Generate Collection Print

L7: Entry 1 of 1

File: USPT

Dec 6, 1988

DOCUMENT-IDENTIFIER: US 4789983 A

TITLE: Wireless network for wideband indoor communications

## Detailed Description Text (10):

For the present network shown in FIG. 1, an exemplary modified polling technique is used, with central node 30 controlling the transmit token. Polling is performed by call processor 35 in central node 30; with the radio UIMs 23, located at concentrators 20 and 21, and NIU 33, located at central node 30, being slaved to processor 35 such that, at any point in time, only one UIM 23 or NIU 33 is allowed to transmit the token to its community of UDs. It should be understood that all of radio UDs 14-19 time share a single radio channel without frequency reuse.

## First Hit Fwd Refs

# ☐ Generate Collection Print

L10: Entry 2 of 4 File: USPT Jan 28, 2003

US-PAT-NO: 6513015

DOCUMENT-IDENTIFIER: US 6513015 B2

TITLE: System and method for customer recognition using wireless identification and

visual data transmission

DATE-ISSUED: January 28, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ogasawara; Nobuo San Diego CA

US-CL-CURRENT: 705/26; 340/643

#### ABSTRACT:

An electronic shopping system, providing for customer recognition using wireless identification and visual data transmission to point-of-sale terminals and other terminal types located in a commercial establishment. A customer's visual image is taken as a customer enters the establishment and, that customer's identification number is obtained from a customer identification card, if the customer possesses such a card. The visual image data is bundled with the customer's demographic profile data, transaction history data and the customer's current accrued store loyalty or incentive points into a customer data record. The customer data record is forwarded to point-of-sale terminals, store workstations, mobile terminals, or other I/O devices capable of displaying multiple customer records. The establishment staff is able to access each of the customer records in order to visually identify customers as they enter the establishment, without the customers needing to announce themselves or otherwise advertise their presence. A customer's visual image can also be acquired as a customer accesses a check-in kiosk terminal prior to beginning a shopping excursion. The acquired customer visual image is bundled with customer preference data and made available to the establishment's staff for visual recognition of each individual customer.

30 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 5